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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,515	02/26/2004	David James Clarke	ID-910 (80233)	6465

27975   7590   01/31/2007
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EXAMINER
VAUTROT, DENNIS L

ART UNIT	PAPER NUMBER
2167	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/787,515	CLARKE ET AL.
	Examiner	Art Unit	
	Dennis L. Vautrot	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 November 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>12 August 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The applicants' amendment, filed 22 November 2006, has been received,

entered into the record and considered.

2.   As a result of the amendment, no claims were amended or canceled. Claims 1 –

21 are pending in the application.

Response to Arguments

3.   Applicant's arguments with respect to claims 1 – 21 have been considered but

are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4.   The 101 rejections for claims 1-13 have been withdrawn.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claim 9 recites the limitation "said controller" in the last paragraph. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 1, 2, 3, 9, 10, 14, 17 and 18 are rejected under 35 U.S.C. 102(b) as being

anticipated by **Rierden et al.** (hereinafter **Rierden**, US 5,978,577).

9.   Regarding claim 1, **Rierden** teaches a communications system comprising: a

plurality of account databases each for storing information associated with different

accounts (See column 2, lines 22 - 29 "Cable system operators typically maintain large

databases containing a variety of subscriber, product and billing information... include

subscriber accounts...It is often desirable to distribute this information across a network

of databases whether or not they are located at the same physical location.");

a central database [DDS] for storing location information associating each

account with a respective account database [data servers] (See column 4, lines 11-16

"According to one embodiment of the invention, these and other objects of the invention

are achieved through the use of at least one Data Directory Server (DDS) located

between one or more transaction generators and one or more data servers. The DDS

efficiently routes transactions and provides data location functions." and see FIG 5.

showing the different account information being stored on the data servers.);

at least one communications device [transaction generators] for accessing

account information (See column 5, lines 45-48 "The transaction generators 120 in the

system of the present invention may be any devices capable of receiving input from a

human user and transmitting that input to the Data Directory Servers (DDSs) 150."); and

an interface device [DDS] for receiving an account access request from said at

least one communications device for a desired account (See column 6, line 8 "After

receiving a client request..." The DDS in the invention contains the equivalent of both

the central database and the interface device of the claims. While there is no separate

interface device, the DDS performs the function of both the central database and the

interface device of the claims, and examiner considers them to be equivalent.),

retrieving account location information from said central database for the desired

account (see column 6, lines 8-10 "...the selected DDS 150 first locates the appropriate

server 160..." and see column 8, lines 55 – 57 "There is also provided an Xref Server

Table (global) which identifies all known and accessible Xref Servers 170." Either the

DDS or the Xref Server could be considered to be a central database which stores

account location information.), and interfacing said at least one communications device

with said respective account database associated with the desired account based

thereon (see column 6, lines 10-12 "...it then submits the client request to the selected

server and finally the DDS 150 returns the result to the submitting client 120." And see

column 9, lines 22 – 25 "Alternatively, the result set may pass through the DDS 150 to

the client 120 without any additional processing on the part of the DDS 150..." This is

providing an interface between the account database and the communication device.),

and

caching [storing in a local table] the account location information and using the

cached account location information (See column 28, lines 51- 54 "In a second

embodiment, the DDS itself maintains one or more internal tables which indicate, based

upon a particular customer number, the server containing the associated data." Storing

in a local table on the DDS is considered caching the account location information.) for

subsequently interfacing [transmitting to Server A] said at least one communications

device with said respective account database. (See column 28, lines 57 – 61 "...the

command stream generated by the DDS is transmitted to Server A which executes the

commands and returns the record for Joe Smith through the DDS, in passthrough

mode, to the requesting client.")

10.   Regarding claim 2, **Rierden** teaches said interface device comprises a caching

module for caching the account location information.   (See column 28, lines 51- 54 "In a

second embodiment, the DDS itself maintains one or more internal tables which

indicate, based upon a particular customer number, the server containing the

associated data." Storing in a local table on the DDS is considered caching the account

location information.)

11.   Regarding claims 3, 10, and 18, **Rierden** teaches said at least one

communications device has an operating protocol associated therewith, and wherein

said interface device comprises at least one protocol interface module for

communicating with said at least one communications device [transaction generators]

using the operating protocol. (See column 2, lines 49 – 53 "Communication techniques

and protocols which are known in the art are employed to allow the transaction

generators to communicate with the servers. For example, Eterne™ may be used when

both client and server are PC-based processors.")

12.   Regarding claim 9, **Rierden** teaches an interface device for interfacing at least

one communications device [transaction generators] with a plurality of account

databases [data servers] each for storing information associated with different accounts

(See column 4, lines 11-16 "According to one embodiment of the invention, these and

other objects of the invention are achieved through the use of at least one Data

Directory Server (DDS) located between one or more transaction generators and one or

more data servers. The DDS efficiently routes transactions and provides data location

functions." and see FIG 5. showing the different account information being stored on the

data servers.); the interface device comprising:

a control module [DDS] for receiving an account access request from the at least

one communications device [transaction generator] for a desired account (See column

5, lines 45-48 "The transaction generators 120 in the system of the present invention

may be any devices capable of receiving input from a human user and transmitting that

input to the Data Directory Servers (DDSs) 150."),

retrieving account location information [locates the appropriate server]

associating the desired account with a respective account database from a central

database (see column 6, lines 8 – 10 "After receiving a client request, the selected DDS

150 first locates the appropriate server 160 for execution for the request..."), and

interfacing the at least one communications device with the respective account

database associated with the desired account based thereon (see column 6, lines 10-12

"...it then submits the client request to the selected server and finally the DDS 150

returns the result to the submitting client 120." And see column 9, lines 22 – 25

"Alternatively, the result set may pass through the DDS 150 to the client 120 without any

additional processing on the part of the DDS 150..." This is providing an interface

between the account database and the communication device.), and

a caching module [internal table, part of the DDS] coupled to said control module

[DDS] for caching the account location information [server containing associated data]

(See column 28, lines 51- 54 "In a second embodiment, the DDS itself maintains one or

more internal tables which indicate, based upon a particular customer number, the

server containing the associated data." Storing in a local table on the DDS is

considered caching the account location information.), said controller using the cached

account location information for subsequently interfacing [transmitting to Server A] the

at least one communications device with the respective account database. (See column

28, lines 57 – 61 "...the command stream generated by the DDS is transmitted to

Server A which executes the commands and returns the record for Joe Smith through

the DDS, in passthrough mode, to the requesting client.")

13.   Regarding claim 14, **Rierden** teaches a method for interfacing at least one

communications device [transaction generators] with a plurality of account databases

[data servers] each for storing information associated with different accounts (See

column 4, lines 11-16 "According to one embodiment of the invention, these and other

objects of the invention are achieved through the use of at least one Data Directory

Server (DDS) located between one or more transaction generators and one or more

data servers. The DDS efficiently routes transactions and provides data location

functions." and see FIG 5. showing the different account information being stored on the

data servers.); the method comprising:

        receiving an account access request from the at least one communications

device [transaction generator] for a desired account (See column 5, lines 45-48 "The

transaction generators 120 in the system of the present invention may be any devices

capable of receiving input from a human user and transmitting that input to the Data

Directory Servers (DDSs) 150.");

        retrieving account location information [locates the appropriate server]

associating the desired account with a respective account database from a central

database (see column 6, lines 8 – 10 "After receiving a client request, the selected DDS

150 first locates the appropriate server 160 for execution for the request...");

        interfacing the at least one communications device with the respective account

database associated with the desired account based upon the retrieved account

location information (see column 6, lines 10-12 "...it then submits the client request to

the selected server and finally the DDS 150 returns the result to the submitting client

120." And see column 9, lines 22 – 25 "Alternatively, the result set may pass through

the DDS 150 to the client 120 without any additional processing on the part of the DDS

150..." This is providing an interface between the account database and the

communication device.); and

caching the account location information [server containing associated data] (See

column 28, lines 51- 54 "In a second embodiment, the DDS itself maintains one or more

internal tables which indicate, based upon a particular customer number, the server

containing the associated data." Storing in a local table on the DDS is considered

caching the account location information.) and using the cached account location

information for subsequently interfacing [transmitting to Server A] the at least one

communications device with the respective account database. (See column 28, lines 57

– 61 "...the command stream generated by the DDS is transmitted to Server A which

executes the commands and returns the record for Joe Smith through the DDS, in

passthrough mode, to the requesting client.")

14.   Regarding claim 17, **Rierden** teaches a computer-readable medium having

computer executable instructions for interfacing at least one communications device

[transaction generators] with a plurality of account databases [data servers] each for

storing information associated with different accounts (See column 4, lines 11-16

"According to one embodiment of the invention, these and other objects of the invention

are achieved through the use of at least one Data Directory Server (DDS) located

between one or more transaction generators and one or more data servers. The DDS

efficiently routes transactions and provides data location functions." and see FIG 5.

showing the different account information being stored on the data servers.); the

computer-readable medium comprising:

a control module [DDS] for receiving an account access request from the at least

one communications device [transaction generator] for a desired account (See column

5, lines 45-48 "The transaction generators 120 in the system of the present invention

may be any devices capable of receiving input from a human user and transmitting that

input to the Data Directory Servers (DDSs) 150."),

retrieving account location information [locates the appropriate server]

associating the desired account with a respective account database from a central

database (see column 6, lines 8 – 10 "After receiving a client request, the selected DDS

150 first locates the appropriate server 160 for execution for the request..."), and

interfacing the at least one communications device with the respective account

database associated with the desired account based thereon (see column 6, lines 10-12

"...it then submits the client request to the selected server and finally the DDS 150

returns the result to the submitting client 120." And see column 9, lines 22 – 25

"Alternatively, the result set may pass through the DDS 150 to the client 120 without any

additional processing on the part of the DDS 150..." This is providing an interface

between the account database and the communication device.), and

a caching module [internal table, part of the DDS] for caching the account

location information [server containing associated data] (See column 28, lines 51- 54 "In

a second embodiment, the DDS itself maintains one or more internal tables which

indicate, based upon a particular customer number, the server containing the

associated data." Storing in a local table on the DDS is considered caching the account

location information.), said control module using the cached account location

information for subsequently interfacing [transmitting to Server A] the at least one

communications device with the respective account database. (See column 28, lines 57

– 61 "...the command stream generated by the DDS is transmitted to Server A which

executes the commands and returns the record for Joe Smith through the DDS, in

passthrough mode, to the requesting client.")

Claim Rejections - 35 USC § 103

15.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

16.   Claims 4, 5; 7, 8; 11; 13; 16; 9; and 21 are rejected under 35 U.S.C. 103(a) as

being unpatentable over **Rierden** as applied to claims 3; 1; 10; 9; 14; 18; and 17,

respectively above, and further in view of **Smith et al.** (hereinafter **Smith**, US

6,871,215).

17.   Regarding claims 4,11, and 19, **Rierden** teaches a communication system

substantially as claimed. **Rierden** does not explicitly disclose said at least one protocol

interface module comprises at least one of a wireless access protocol (WAP) module, a

post office protocol (POP) module, and a hypertext markup language (HTML) module.

However, **Smith** teaches said at least one protocol interface module comprises

at least one of a wireless access protocol (WAP) module, a post office protocol (POP)

module, and a hypertext markup language (HTML) module (See column 2, lines 30-34

"The universal mail application preferably includes multiple front-end user interfaces

from WAP and HDML for installation on relevant wireless devices, e.g., on a PQA for

PDS software, or on standard HTML interface.")

It would have been obvious to one with ordinary skill in the art at the time of the

invention to combine the teachings of **Smith** with **Rierden** because **Smith** also relates

to handling a plurality of account files, and by including the various protocols mentioned

in **Smith**, the system is more robust by being able to handle a variety of newer

protocols, some of which allow for e-mail and internet functionality. It is for this reason

that one of ordinary skill in the art would have been motivated to include said at least

one protocol interface module comprises at least one of a wireless access protocol

(WAP) module, a post office protocol (POP) module, and a hypertext markup language

(HTML) module.

It would have been obvious to one with ordinary skill in the art at the time of the

invention to combine the teachings of **Smith** with **Rierden** because **Smith** also relates

to handling a plurality of account files and by including the operating protocol interface

of **Smith**, various disparate protocols can be interpreted, then used by the system

providing greater functionality. It is for this reason that one of ordinary skill in the art

would have been motivated to include said at least one communications device has an

operating protocol associated therewith, and wherein said interface device comprises at

least one protocol interface module for communicating with said at least one

communications device using the operating protocol.

18.   Regarding claim 5, the combination of **Smith** and **Rierden** additionally discloses

said interface device further comprises a control module for interfacing said at least one

protocol interface module with said central and account databases. (See **Smith** page 3,

paragraph [0028] "The mail bridge 100 further includes an account information store

171 for storing account information for e mail accounts at the Internet mail servers, and

an account information module that is used to manage and retrieve the account

information in the account information store 171." The mail bridge performs the function

of the control module mentioned in the claim.)

19.   Regarding claim 7, the combination of **Smith** and **Rierden** additionally teaches

said at least one communications device comprises at least one mobile wireless

communications device. (See **Smith** column 2, lines 25-29 "The present invention

relates to a universal mail application for wireless device application which allows a user

the ability to access and view email messages from a personal account using Internet

Message Access Protocol (IMAP)." The device is a mobile wireless communication

device.)

20. Regarding claims 8, 13, 16, and 21, the combination of **Smith** and **Rierden**

additionally teaches the accounts comprise electronic mail (e-mail) accounts. (See

Smith column 1, lines 41-44 "In accordance with the principles of the present invention,

a universal mail module comprises a plurality of e mail account information files relating

to a corresponding plurality of e mail accounts of a wireless subscriber.")

21. Claims 6, 12, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Rierden** as applied to claims 1, 9, and 17 respectively above, and further in view of

Hoover et al. (hereinafter **Hoover,** US 5,560,005). **Rierden** teaches a communication

system substantially as claimed. **Rierden** does not explicitly disclose said central

database further stores shared system setup information; and wherein said interface

device also retrieves and caches the shared system setup information for use in

interfacing said at least one communications device with said respective account

database. However, **Hoover** teaches said central database further stores shared

system setup information; and wherein said interface device also retrieves and caches

the shared system setup information for use in interfacing said at least one

communications device with said respective account database. (See column 23, lines

23-49, where object attribute tables are explained, which describes the format of the

data in the database, and how the tables allow the system to interact with disparate

database formats.) It would have been obvious to one with ordinary skill in the art at the
time of the invention to combine **Hoover** with **Rierden** because Hoover also addresses
distributed databases and by storing the system setup information, the various linked in
systems do not have to have the setup information entered every time and provides for
a more efficient system. It is for this reason that one of ordinary skill in the art would
have been motivated to include said central database further stores shared system
setup information; and wherein said interface device also retrieves and caches the
shared system setup information for use in interfacing said at least one communications
device with said respective account database.

22.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rierden**
as applied to claim 14 above, and further in view of **Hoover**.

     Rierden teaches interfacing comprises interfacing the at least one
communications device with the respective account database also based up on the
retrieved shared system setup information. (see column 6, lines 10-12 "…it then submits
the client request to the selected server and finally the DDS 150 returns the result to the
submitting client 120." And see column 9, lines 22 – 25 "Alternatively, the result set
may pass through the DDS 150 to the client 120 without any additional processing on
the part of the DDS 150…" This is providing an interface between the account database
and the communication device. And see column 28, lines 55 – 57 "In either case, the
stored procedure is translated at the DDS level into SQL commands recognizable to the

dta servers containing the data." This translation uses the system setup information to facilitate the interfacing.)

Rierden does not explicitly disclose retrieving further comprises retrieving shared system setup information from the central database, and wherein caching further comprises caching the retrieved shared system setup information also for use in subsequently interfacing the at least one communications device with the respective account database.

However, Hoover teaches retrieving further comprises retrieving shared system setup information from the central database, and wherein caching further comprises caching the retrieved shared system setup information also for use in subsequently interfacing [interact] the at least one communications device with the respective account database. (See column 23, lines 23-49, where object attribute tables are explained, which describes the format of the data in the database, and how the tables allow the system to interact with disparate database formats.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine Hoover with Rierden because Hoover also addresses distributed databases and by storing the system setup information, the various linked in systems do not have to have the setup information entered every time and provides for a more efficient system. It is for this reason that one of ordinary skill in the art would have been motivated to include said central database further stores shared system setup information; and wherein said interface device also retrieves and caches the shared

system setup information for use in interfacing said at least one communications device

with said respective account database.

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

   Skantze (US 2003/0014327) teaches a server unit which has access to a

database that stores computer network addresses relating to computer that hold

account information belonging to users.

   Brubacher et al. (US 2003/0177188) teaches storing, managing and retrieving

account information for e mail accounts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis L. Vautrot whose telephone number is 571-272-2184. The examiner can normally be reached on Monday-Friday 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dv
19 January 2007

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